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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,856	01/25/2002	Yuan Shao	01263.002303	8542
5514	7590	10/05/2005	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			ALBERTALLI, BRIAN LOUIS	
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2655

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,856

Applicant(s)

SHAO, YUAN

Examiner

Brian L. Albertalli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12-23 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 and 12-22 is/are allowed.
- 6) ☒ Claim(s) 23 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendments to the claims have been entered. Claims 1-4, 6-9, 12-19, and 21-23 are currently amended, claims 10, 11, 24, and 25 are currently cancelled, and claim 26 has been added.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 23 have been considered but are moot in view of the new ground(s) of rejection.

However, regarding the Applicant's allegation that Lewis et al. is only acquired from a single user (see page 16, 1st paragraph of Applicant's arguments), it is noted that Lewis et al. clearly describes an utterance store for a plurality of users (see column 3, lines 38-40). Furthermore, Lewis et al. disclose user-independent models are generated from training data from a plurality of speakers (column 3, line 62 to column 4, line 2).

Information Disclosure Statement

3. Applicant's response regarding the previously submitted Information Disclosure Statement (mail date April 25, 2002), overcome the objections made in the previous Office Action.

Specification

4. The amendment to the title of the invention overcomes the objections made in the previous Office Action. The objection to the title is withdrawn.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (U.S. Patent 5,850,627), in view of Fado et al. (U.S. Patent 6,342,903).

In regard to claim 23, Gould et al. disclose a method of collecting utterance data comprising the steps of:

displaying a first user interface to enable user input of speaker identifiers and storing said speaker identifiers in a speaker database (Fig. 57, column 43, lines 27-30);

displaying a second user interface to enable user input of word identifiers and storing said word identifiers in a vocabulary database (Fig. 62, Add Word dialog box, column 46, lines 44-48);

displaying a series of prompts to prompt the utterance of words corresponding to word identifiers stored in said vocabulary database by speakers identified by speaker identifiers stored in said speaker database (the user interface of Fig. 61 prompts the user in element 1269 to pronounce words from that user's vocabulary and trains that

user's model, column 45, lines 7-16), each said prompt including data identifying a word identifier identifying one or more words to be uttered (Fig. 61, 1269); and

synchronizing the collection of utterance data indicative of the pronunciation of words with said series of prompts (Fig. 61, after entering a user identifier through the interface of Fig. 57, two files are set up for each user that contain the identified user's vocabulary and models, column 43, lines 39-40; the user interface of Fig. 61 prompts the user in element 1269 to pronounce words from that user's vocabulary and trains that user's model, column 45, lines 7-16).

Gould et al. do not disclose including data identifying a speaker identifier identifying by whom an utterance corresponding to a displayed word identifier is to be made.

Fado et al. disclose a user interface including data identifying a speaker identifier identifying by whom an utterance corresponding to a displayed word identifier is to be made (Fig. 12, 'Harvey Ruback' in enrollment window).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Gould et al. to include data identifying a speaker identifier identifying by whom an utterance corresponding to a displayed word identifier is to be made, in order to ensure the correct person uttered the words. This would prevent a user from accidentally training a speech recognizer profile for another user and reducing the accuracy of that speech recognizer profile.

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7. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al. (U.S. Patent 6,826,306), in view of Gould et al. (U.S. Patent 5,850,627).

Lewis et al. disclose an apparatus comprising :

a vocabulary database operable to store word data indicative of one or more words (a predetermined script is stored for the user to read while training the system, column 5, lines 6-14);

a speaker database operable to store speaker data indicative of speakers from whom utterance data is to be collected (user profiles, column 5, lines 19-26); and

a data collection unit (input unit 12) operable to collect data indicative of the pronunciation of words identified by word data stored in said vocabulary database as spoken by one or more speakers identified by speaker data store in said speaker database (test data and enrollment data is collected from one or more users through input unit 12, column 3, lines 35-40 and lines 46-49).

Furthermore, Lewis et al. disclose a graphical user interface (output unit 30, column 4, lines 30-34) and that the user *reads* a series of prompts to train the models (indicating that the prompts must necessarily be visually displayed by graphical user interface 30, column 5, lines 6-10).

Lewis et al. does not disclose the details of how the user interface is presented on graphical user interface 30.

Gould et al. disclose a system (Fig. 4) for training speech models wherein data is collected from a user with the aid of a graphical user interface. The system is operable:

to generate a first user interface to enable user input of speaker data for storage in said speaker database (Fig. 57, column 43, lines 27-30);

to generate a second user interface to enable user input of word data for storage in said vocabulary database (Fig. 62, Add Word dialog box, column 46, lines 44-48);
and

to generate a third user interface operable to generate a series of prompts to prompt the utterance of words corresponding to word data stored in said vocabulary database by speakers identified by speaker data stored in said speaker database and to synchronize said series of prompts with the collection of utterance data indicative of pronunciation of words (Fig. 61, after entering a user identifier through the interface of Fig. 57, two files are set up for each user that contain the identified user's vocabulary and models, column 43, lines 39-40; the user interface of Fig. 61 prompts the user in element 1269 to pronounce words from that user's vocabulary and trains that user's model, column 45, lines 7-16).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Lewis et al. to use the user interfaces disclosed by Gould et al. to collect vocabulary and user information, and present prompts to the user to speak to collect, generate, and test the speech models, in order to provide an intuitive interface for a layperson to generate speech models.

Allowable Subject Matter

8. Claims 1-9 and 12-22 are allowed.

9. The following is an examiner's statement of reasons for allowance:

Claim 1 requires a user input identifying a user selection of a plurality of items of speaker data (i.e. stored audio data from more than one speaker must be identified by the user) in addition to word data to generate speech models of words and further requires that the speech models are tested utilizing utterance data stored in said utterance store. That is, a user makes a second selection in the testing stage to select speaker and word data that was previously collected by the data collection unit to test the generated speaker models. The prior art of record does not disclose or suggest testing the accuracy of speech models of words generated from a user selection of a plurality of speakers and one or more words in an utterance database containing utterance data collected through a data collection unit, the testing utilizing utterance data from the utterance database.

Claims 2-9 and 12-22 further limit claim 1 and thus are also allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mizuno et al. (U.S. Patent ⁵7, 732, 392) disclose a method that trains speech models utilizing a selection of speech data from a first database and tests

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the speech models utilizing speech data from a second database. Schalk (U.S. Patent 5,845,246) disclose a method for collecting training data.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L. Albertalli whose telephone number is (571) 272-7616. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 9/29/05

A handwritten signature in black ink, appearing to read 'W. R. Young', with a stylized, wavy line extending from the end.

W. R. YOUNG
PRIMARY EXAMINER

W. R. YOUNG
PRIMARY EXAMINER